

# Great Places Program

## A Public-Private GIS Collaborative Effort for California

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California Biodiversity Council  
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# GPP OVERVIEW

- CHALLENGES
- GOALS
- ORGANIZATION & CONTRIBUTORS
- ACHIEVEMENTS
- CURRENT FOCUS
- NEXT STEPS

# CHALLENGES

- Local, state and regional entities cannot:
  - easily obtain natural resource data/information for informed land use and planning decisions.
  - access natural resource data/information early to develop projects and planning initiatives.
- Natural resource and planning data is:
  - often not available or not found easily.
  - often not in a digitized format for use with other data.
  - costly to integrate because of inconsistent GIS standards.

# GPP GOALS

- **GOAL 1.** Improve and integrate natural resource and key planning data for more effective regional planning and program decisions.
- **GOAL 2.** Improve access to, and use of, natural resource and planning data through an on-line, centralized spatial data system.
- **GOAL 3.** Establish processes for sharing data between local, regional and state entities.

# GPP ORGANIZATION

- **MANAGEMENT GROUP:** Jointly directed by the California Resources Agency; California Business, Transportation & Housing Agency; California Environmental Protection Agency; Office of Planning and Research and the Departments of Fish and Game and Caltrans.
- **TECHNICAL AND POLICY SUPPORT:**
  - Program Coordinator: Works on policy development and coordinates initiatives and outreach efforts, with direction from the Management Group.
  - Information Center for the Environment (ICE) at UC Davis works on policy development and coordinates spatial data and tool development, with direction from the Management Group.

# GPP PUBLIC & PRIVATE CONTRIBUTORS

In-kind contributions (staffing & services) and funds totaling \$600,000:

- California Environmental Resources Evaluation System (CERES) Program at Resources Agency
- California Department of Transportation
- Resources Legacy Fund Foundation
- California Department of Conservation
- California Department of Fish and Game
- Mountains Recreation & Conservation Authority
- California Department of Parks and Recreation

# GPP ACTIONS

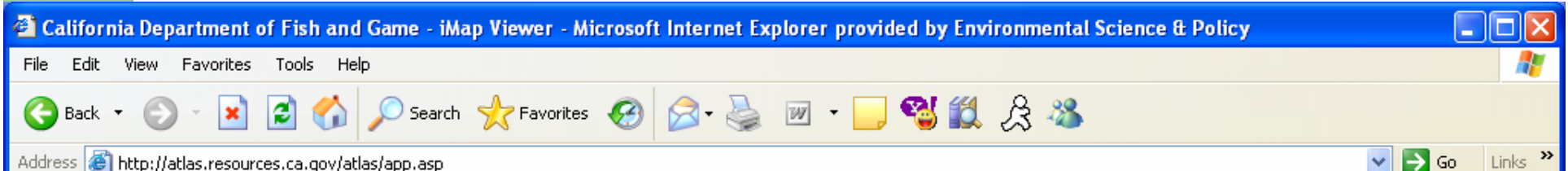
- Updating natural resource data in San Joaquin Valley:
  - Assisting DFG Region 4 in acquiring regional and local data layers for conservation priority-setting.
  - Collecting statewide and regional GIS layers.
  - Acquiring local planning and natural resource data layers.
  - Developing San Joaquin Valley map service to assist local and regional planning.
- Developed the Universal Model Builder (UMB), an analytical tool that evaluates effects of land use and planning decisions on natural resources.
- Updating the California Digital Conservation Atlas, which receives 1,200 visitors daily.

# California Digital Conservation Atlas

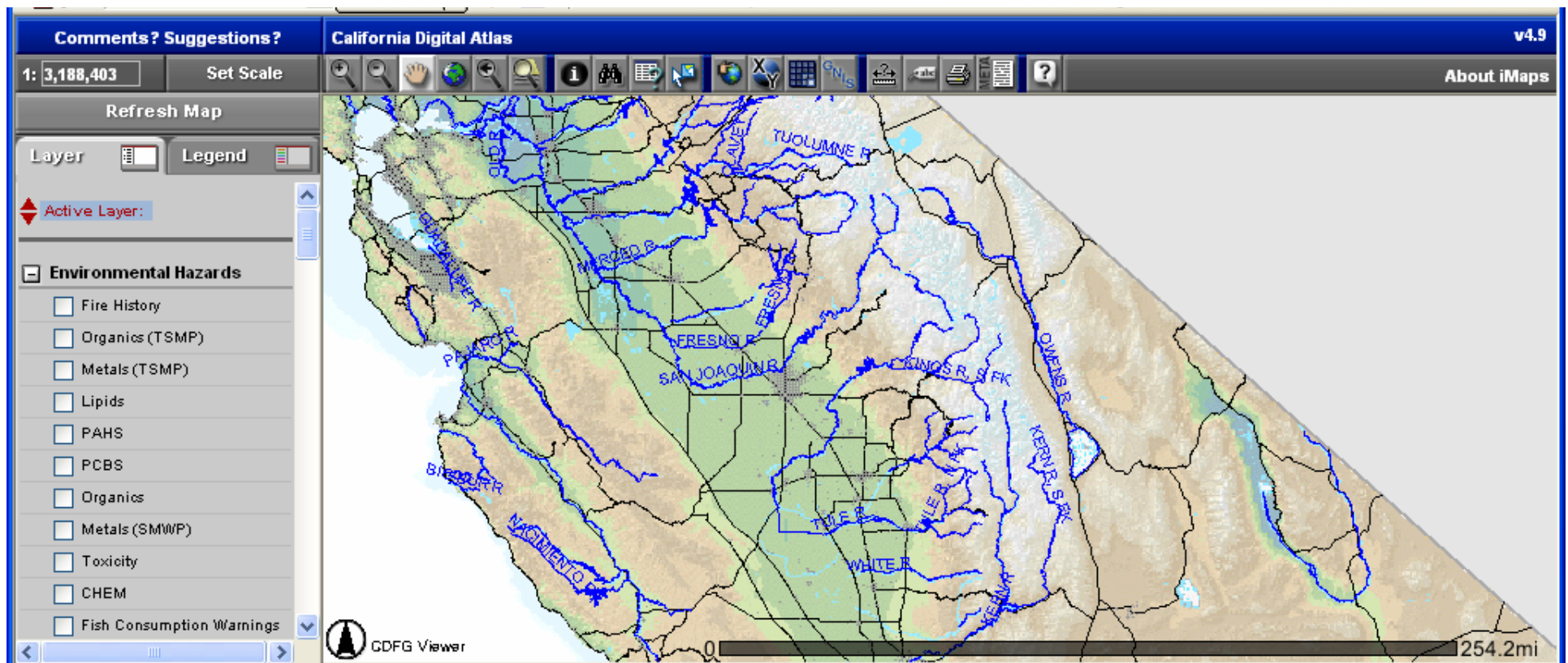
- Provides map views of California's natural resources and working landscapes.
- Accessible through the CERES public website.
- Easy-to-use by people not familiar with specialized geographic (GIS) software.



# California Digital Conservation Atlas

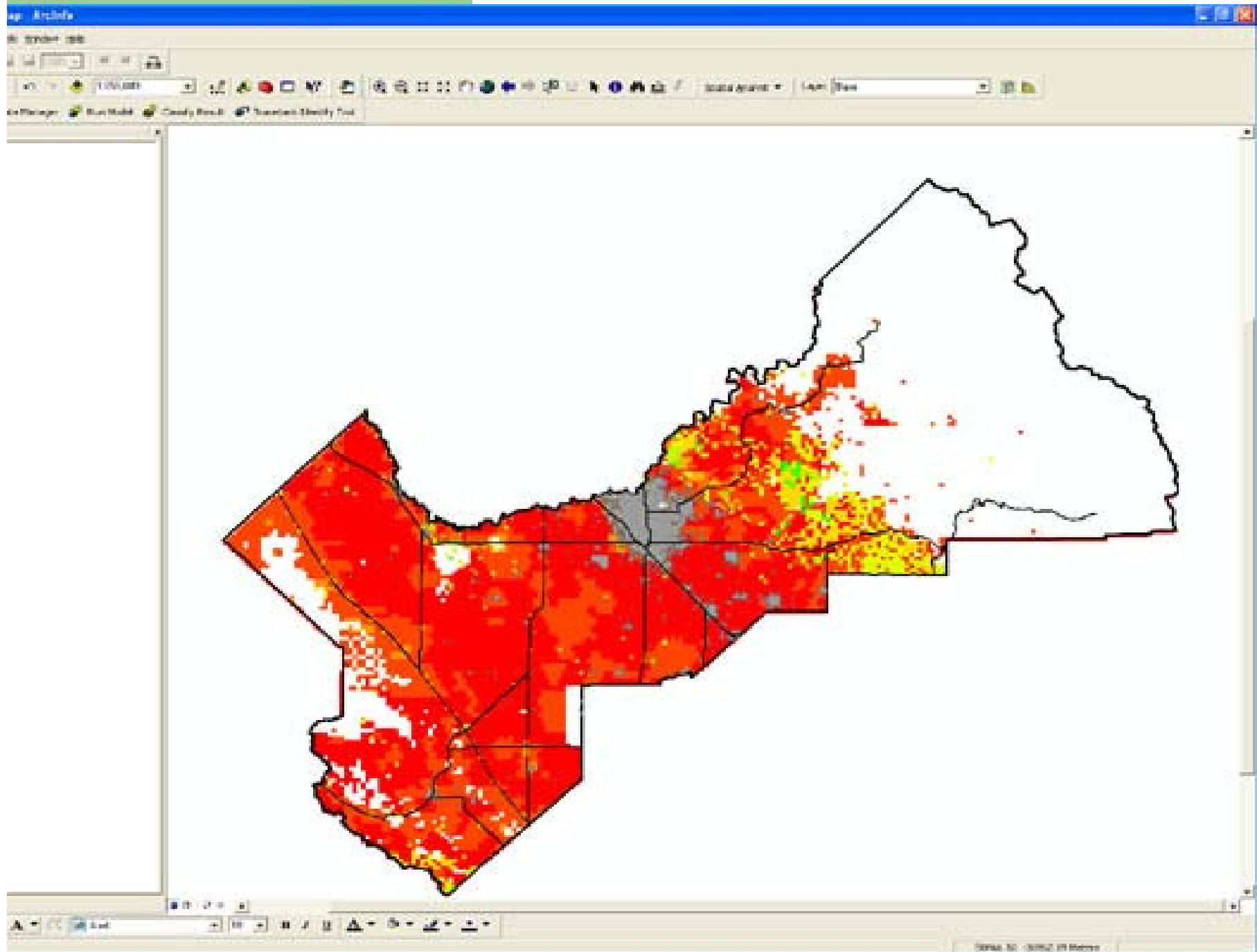


<http://atlas.resources.ca.gov/atlas/app.asp>



# Universal Model Builder (UMB) - Analytical Tool for Decision-Makers

- Enables user to combine and evaluate natural resource and planning data.
- Allows user to “weight” the relative importance of different factors.
- Produces spatial maps displaying the results of the user’s values.
- Available to local, regional, state decision-makers for analyzing decisions, e.g. General Plans, project implementation, etc.
- User-friendly for program managers and planners not proficient in spatial (GIS) software.



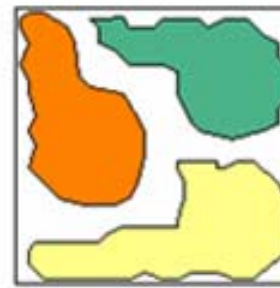


## Create 1 Acre Grid Layer

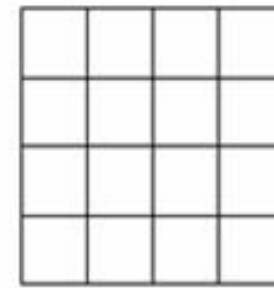
GIS Map Layers



Single layer (Theme)  
Three Conditions (Values)

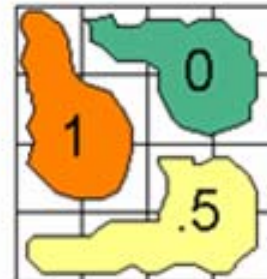


Grid layer



*Convert layer to grid*

Apply Value Rule



Create Grid

1	0	0	0
1	1	0	0
1	1	.5	.5
.5	.5	.5	.5



## Weight Each Grid Layer

Multiply x Relative Importance

1	0	0	0
1	1	0	0
1	1	.5	.5
.5	.5	.5	.5

$$\times 4 =$$

Zero Values Drop Out

4	0	0	0
4	4	0	0
4	4	2	2
2	2	2	2

Repeat Process for Each GIS Map Layer





## Group and Add Weighted Grid Layers

### “Potential for Biodiversity” Group

Habitat Type

4	0	0	0
4	4	0	0
4	4	2	2
2	2	2	2

T+E Species

4	4	4	4
4	4	4	4
0	0	0	0
0	0	0	0

Rare Soils

0	3	0	0
0	0	3	3
0	0	0	0
0	0	0	0

Wetlands

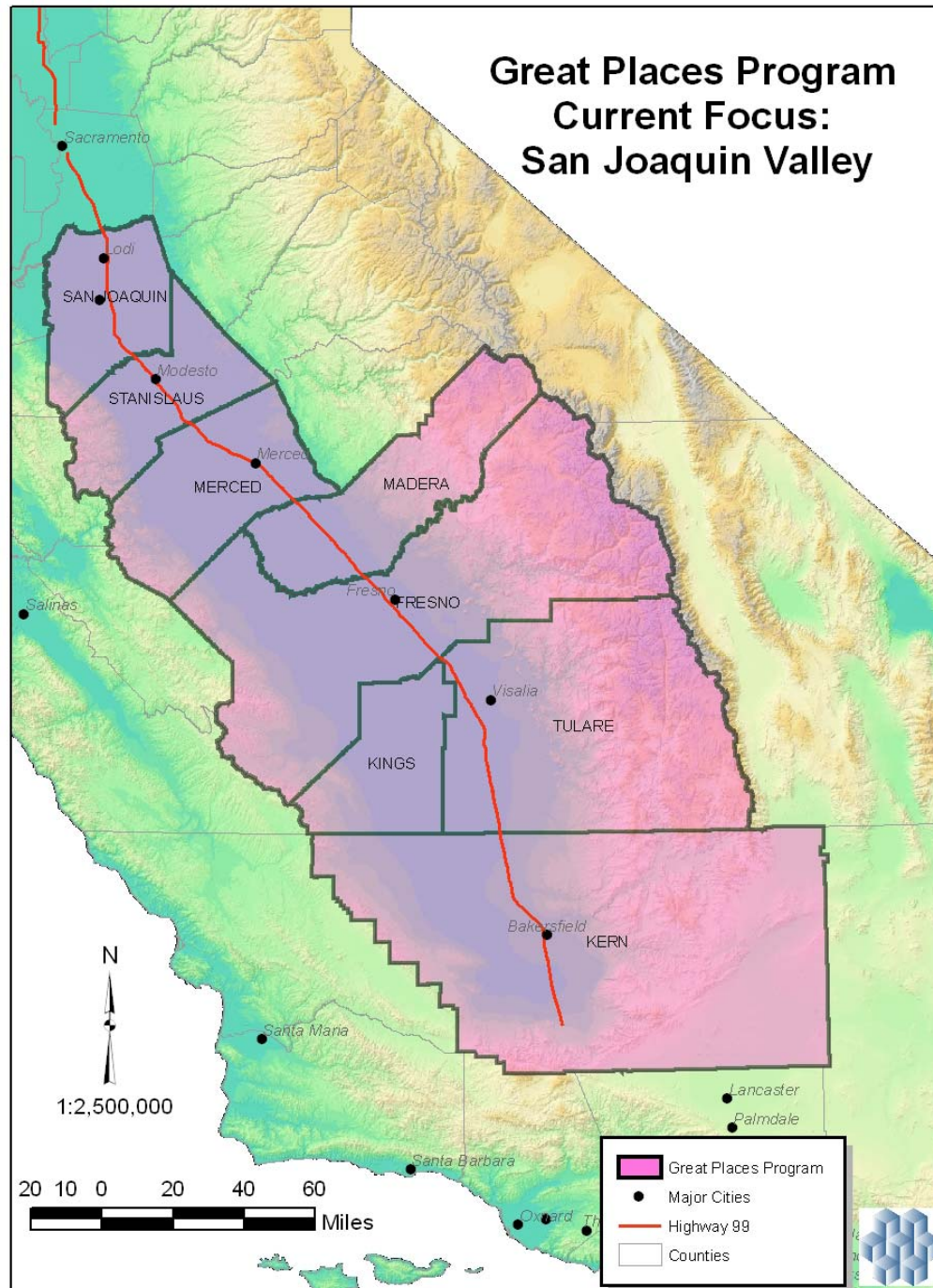
0	4	0	0
0	4	0	0
0	4	0	0
0	4	0	0

Combined Weights  
For Biodiversity Values

8	7	0	0
8	12	7	7
4	8	2	2
6	6	2	2



# Great Places Program Current Focus: San Joaquin Valley



# GPP FOCUS:

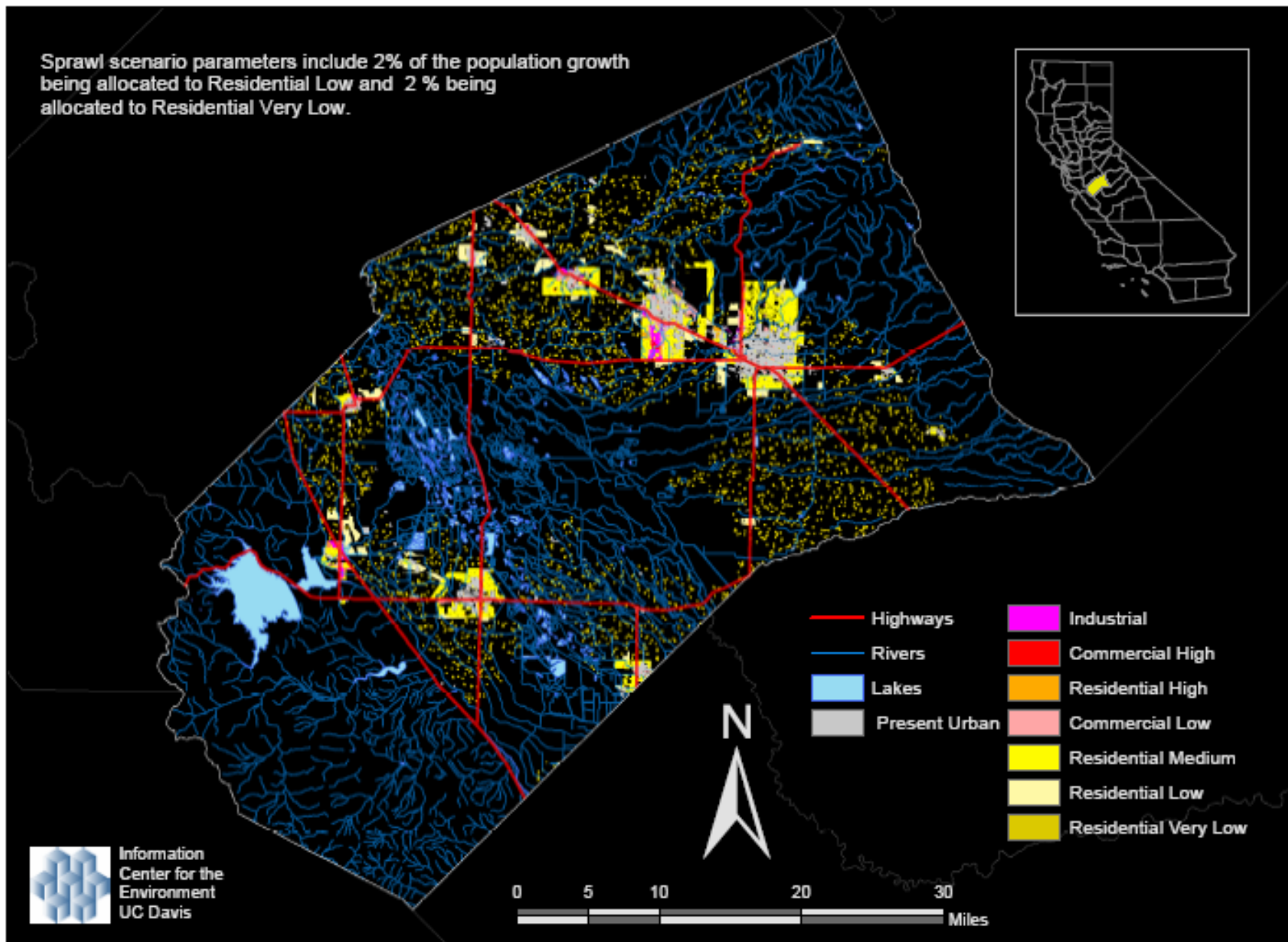
- San Joaquin Valley – San Joaquin, Stanislaus, Merced, Madera, Fresno, Tulare, Kings and Kern counties.
  - Update natural resource and planning data and information.
  - B T & H Agency's California Regional Blueprint Planning Program (San Joaquin Valley): provide natural resource data to eight county organizations cooperating in the exploration of a valley-wide planning vision.
  - Governor's California Partnership for the San Joaquin Valley (Land Use, Housing and Agriculture Committee): Preparing scenarios and spatial maps showing effects of Committee's planning and land use options.
  - Develop ways to share local data and information with state entities -- and state natural resources information with local and regional entities.



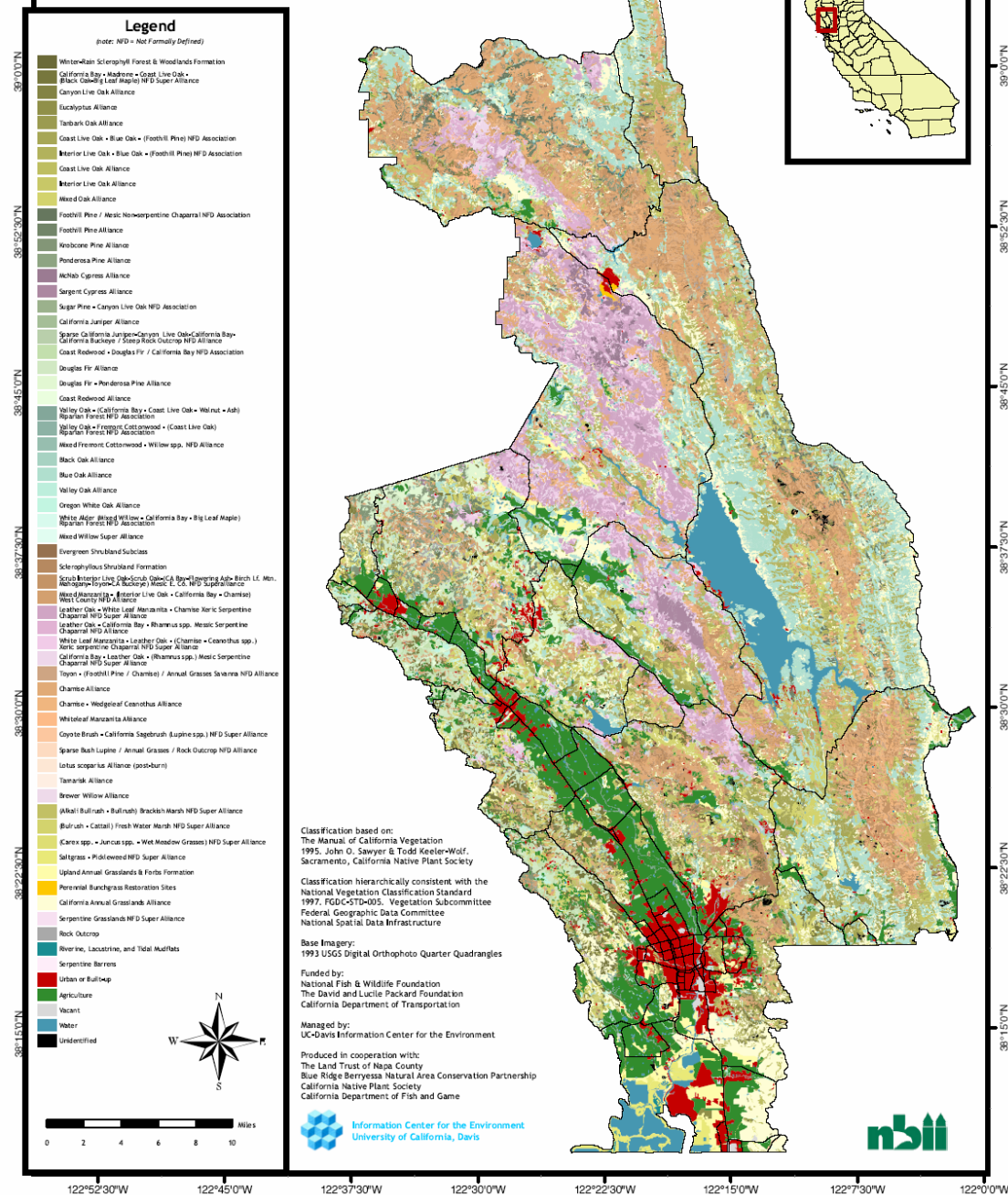
# GPP BENEFITS

- Updated natural resource data for regional planning in San Joaquin Valley.
- Early and easy access to regional-scale natural resource and planning data to:
  - Reduce costs and time to develop local/regional plans, design projects and implement programs.
  - Promote regional planning to help conserve natural resources and implement more effective planning.

## Merced County Sprawl Scenario from UPlan Model



## Version 0.85 – November, 2003





Coast Redwood Alliance

Valley Oak • (California Bay • Coast Live Oak • Walnut • Ash)  
Riparian Forest NFD Association

Valley Oak • Fremont Cottonwood • (Coast Live Oak)  
Riparian Forest NFD Association

Mixed Fremont Cottonwood • Willow spp. NFD Alliance

Black Oak Alliance

Blue Oak Alliance

Valley Oak Alliance

Oregon White Oak Alliance

White Alder (Mixed Willow • California Bay • Big Leaf Maple)  
Riparian Forest NFD Association

Mixed Willow Super Alliance

Evergreen Shrubland Subclass

Sclerophyllous Shrubland Formation

Scrub Interior Live Oak • Scrub Oak • (CA Bay • Flowering Ash • Birch Lf. Mtn.  
Mahogany • Toyon • CA Buckeye) Mesic E. Co. NFD Super Alliance

Mixed Manzanita • Interior Live Oak • California Bay • Chamise)  
West County NFD Alliance

Leather Oak • White Leaf Manzanita • Chamise Xeric Serpentine  
Chaparral NFD Super Alliance

Leather Oak • California Bay • Rhamnus spp. Mesic Serpentine  
Chaparral NFD Alliance

White Leaf Manzanita • Leather Oak • (Chamise • Ceanothus spp.)  
Xeric serpentine Chaparral NFD Super Alliance

California Bay • Leather Oak • (Rhamnus spp.) Mesic Serpentine  
Chaparral NFD Super Alliance

Toyon • (Foothill Pine / Chamise) / Annual Grasses Savanna NFD Alliance

Chamise Alliance

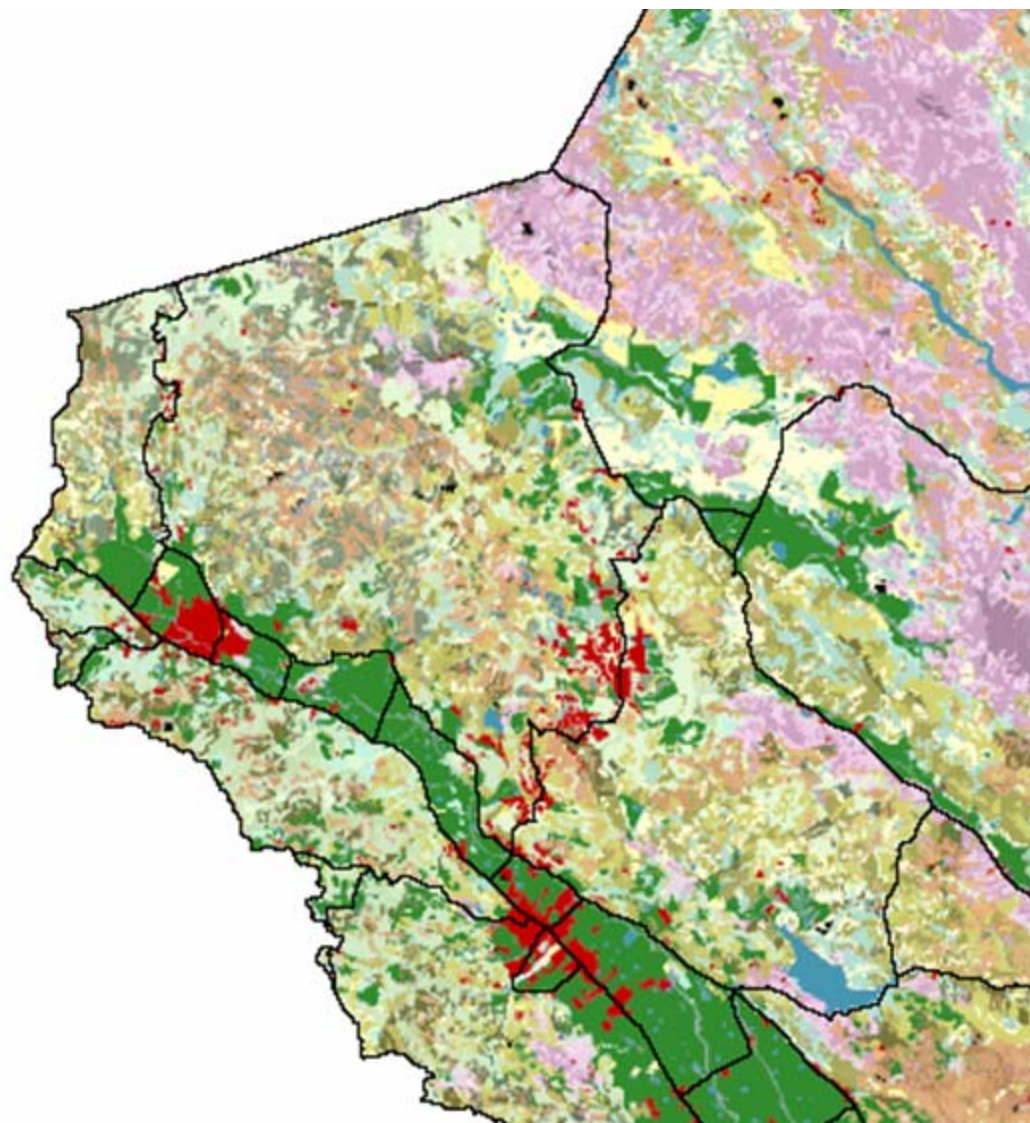
Chamise • Wedgeleaf Ceanothus Alliance

Whiteleaf Manzanita Alliance

Coyote Brush • California Sagebrush (Lupine spp.) NFD Super Alliance

Sparse Bush Lupine / Annual Grasses / Rock Outcrop NFD Alliance

Lotus scoparius Alliance (post-burn)



# GPP NEXT STEPS

- Identify new partners to improve access to and sharing of natural resource and planning data.
- Promote the use of the Universal Model Builder (UMB) Analytical Tool and data to local, regional and other users.
- Work with other governmental entities to make information and data available as a web service and/or posted on the Resources Agency's CERES web site – the State's "one stop" web site for natural resource and planning data.

## GPP NEXT STEPS (continued)

- Implement the two highest priorities from surveys of public and private partners:
- #1 Compile Current General Plan and Parcel Data
  - Establish a pilot to exchange local and state data (I.e. general plans, parcel information, natural resource data) with Caltrans Blue Print Grant recipients.
- #2 Develop a detailed, habitat oriented vegetation map
  - Work with key federal, state and local entities to improve vegetation map coverage for use in regional land use and conservation planning.